

CLAIMS

1. Braking apparatus for use with a hand-propelled vehicle, said apparatus including means for sensing grip on, or touching of, portion of said vehicle by a user of said vehicle, and control means associated with said touch or grip sensing means for preventing or stopping movement of said vehicle after or upon a predetermined movement of said vehicle subsequent to release of said vehicle by said user as sensed by said touch or grip sensing means.
- 10 2. Braking apparatus as claimed in claim 1 wherein said touch or grip sensing means for sensing touching of or grip on the vehicle is associated with a handle of the vehicle by which the vehicle is normally propelled by hand.
- 15 3. Braking apparatus as claimed in claim 2 wherein said touch or grip sensing means comprises one or more touch sensitive switches.
4. Braking apparatus as claimed in claim 3 wherein said touch sensitive switches comprise a touch pad or pads on or in the handle.
- 20 5. Braking apparatus as claimed in claim 3 wherein the or each touch sensitive switch comprise a pressure responsive switch or switches on or in the handle.
6. Braking apparatus as claimed in any one of the preceding claims wherein said control means prevents or stops movement of the vehicle by means of actuation of a selectively actuatable brake assembly associated with one or more wheels of the vehicle.
- 25 7. Braking apparatus as claimed in claim 6 wherein the or each brake assembly comprises a brake activation device and a braking member which is movable by the activation device into engagement with a vehicle wheel to prevent or stop rotation thereof.
- 30 8. Braking apparatus as claimed in claim 7 wherein said braking member comprises a brake pad or other movement inhibiting member which may be moved to a position to

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prevent wheel rotation.

9. Braking apparatus as claimed in claim 7 or claim 8 wherein said activation device is selectively actuatable to release the braking member from the wheel to allow its rotation.

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10. Braking apparatus as claimed in claim 6 wherein said activation device is single acting and associated with a mechanical member such as a spring which applies the braking force or releases the braking force in accordance with the state of activation of the brake activation device.

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11. Braking apparatus according to any one of claims 7 to 10 wherein said activation device comprises an electrically operated activation device and wherein the control means is arranged to control the supply of power to the brake activation device to control activation thereof.

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12. Braking apparatus according to claim 11 wherein said control means is associated with a switch which may be turned on or off by the control means to control supply of power to the brake activation device.

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13. Braking apparatus as claimed in claim 12 wherein said switch controlled by the control means comprises a switch associated with the touch or grip sensing means, said switch ensuring that the brakes are not applied when the touch or grip sensitive means sense touch or grip of the handle of the vehicle.

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14. Braking apparatus as claimed in claim 13 wherein said switch or switches may be arranged such that power is not supplied to the brake activation device when at least the touch or grip sensitive means sense touching or gripping of the handle of the vehicle.

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15. Braking apparatus as claimed in claim 13 or 14 wherein said touch or grip sensing means suitably comprises a pair of grip or touch sensitive pads or switches which are spaced apart on the handle of the vehicle.

16. Braking apparatus as claimed in claim 15 wherein both said pads or switches are

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required to be activated by touch or grip by both hands of a user to ensure the brakes are not applied in normal operation.

17. Braking apparatus according to any one of the preceding claims and including
5 movement sensing means associated with said vehicle for sensing the velocity of
movement of the vehicle and/or directly or indirectly, the distance moved by the vehicle.

18. Braking apparatus as claimed in claim 17 wherein said control means is
associated with the movement sensing means whereby the control means can determine
10 when, by activation of the brake activation device, to prevent or stop movement of the
vehicle.

19. Braking apparatus as claimed in any one of claims 15 to 17 wherein said touch
sensitive pads or switches comprise a keypad into which a certain code or codes is or are
15 required to be entered to release the vehicle brake for use of the vehicle.

20. A hand-propelled vehicle of the type having a plurality of supporting wheels and a
handle for propelling said vehicle, said vehicle including braking apparatus, said braking
apparatus being adapted to prevent or stop movement of said vehicle upon a predetermined
20 movement or velocity of said vehicle subsequent to release of said handle by a user.

21. A hand propelled vehicle as claimed in claim 20 wherein said handle includes touch
sensitive means for sensing grip or touch on the handle or release of the handle.

25 22. A hand propelled vehicle according to claim 20 or 21 wherein wheel rotation
sensing means are provided to sense vehicle speed or distance.

23. A hand propelled vehicle as claimed in any one of claims 20 to 22 and including
programmable control means associated with the touch sensing means and wheel rotation
30 sensing means to control application of a brake to a vehicle wheel to stop movement of the
vehicle.